



Complete Summary

TITLE

Rheumatoid arthritis: percentage of patients with rheumatoid arthritis started on prednisone greater than or equal to 10 mgs daily, (or other steroid equivalent) and who continue on prednisone for more than three months for whom 1,500 mg calcium and 400 international units (IUs) per day of Vitamin D are prescribed and antiresorptive therapy is discussed with the patient.

SOURCE(S)

Khanna D, Arnold EL, Pencharz JN, Grossman JM, Traina SB, Lal A, MacLean CH. Measuring process of arthritis care: the Arthritis Foundation's quality indicator set for rheumatoid arthritis. *Semin Arthritis Rheum*2006;35:211-237.

MacLean CH, Saag KG, Solomon DH, Morton SC, Sampsel S, Klippel JH. Measuring quality in arthritis care: methods for developing the Arthritis Foundation's quality indicator set. *Arthritis Rheum*2004 Apr 15;51(2):193-202. [PubMed](#)

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of patients with rheumatoid arthritis started on prednisone greater than or equal to 10 mgs daily, (or other steroid equivalent) and who continue on prednisone for more than three months for whom 1,500 mg calcium and 400 international units (IUs) per day of Vitamin D are prescribed and antiresorptive therapy is discussed with the patient.

RATIONALE

Calcium, Vitamin D supplementation and antiresorptive agents reduce the risk of glucocorticoid-induced osteoporosis.

PRIMARY CLINICAL COMPONENT

Rheumatoid arthritis; prednisone; steroid; calcium, Vitamin D, antiresorptive therapy

DENOMINATOR DESCRIPTION

Patients with rheumatoid arthritis started on prednisone greater than or equal to 10 mgs daily, (or other steroid equivalent) and who continue on prednisone for more than three months

NUMERATOR DESCRIPTION

Patients for whom 1,500 mg calcium and 400 international units (IUs) per day of Vitamin D are prescribed and antiresorptive therapy is discussed with the patient

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
- A systematic review of the clinical literature
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Unspecified

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Ambulatory Care
Physician Group Practices/Clinics

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

Unspecified

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Rheumatoid arthritis (RA) affects one percent of the adult population. RA affects approximately 2.5 million Americans, disproportionately women.

EVIDENCE FOR INCIDENCE/PREVALENCE

Alarcon GS. Epidemiology of rheumatoid arthritis. Rheum Dis Clin North Am 1995 Aug;21(3):589-604. [144 references] [PubMed](#)

Hochberg MC, Spector TD. Epidemiology of rheumatoid arthritis: update. Epidemiol Rev 1990;12:247-52. [48 references] [PubMed](#)

Hochberg MC. Adult and juvenile rheumatoid arthritis: current epidemiologic concepts. Epidemiol Rev 1981;3:27-44. [129 references] [PubMed](#)

Lawrence RC, Helmick CG, Arnett FC, Deyo RA, Felson DT, Giannini EH, Heyse SP, Hirsch R, Hochberg MC, Hunder GG, Liang MH, Pillemer SR, Steen VD, Wolfe F. Estimates of the prevalence of arthritis and selected musculoskeletal disorders in the United States. Arthritis Rheum 1998 May;41(5):778-99. [PubMed](#)

McDuffie FC. Morbidity impact of rheumatoid arthritis on society. Am J Med 1985 Jan 21;78(1A):1-5. [PubMed](#)

ASSOCIATION WITH VULNERABLE POPULATIONS

See the "Incidence/Prevalence" field.

BURDEN OF ILLNESS

Forty percent of patients with early rheumatoid arthritis (RA) (less than six months of symptoms) have erosive disease at presentation and remission is rare (less than 5%).

EVIDENCE FOR BURDEN OF ILLNESS

Hannonen P, Mottonen T, Hakola M, Oka M. Sulfasalazine in early rheumatoid arthritis. A 48-week double-blind, prospective, placebo-controlled study. Arthritis Rheum 1993 Nov;36(11):1501-9. [PubMed](#)

Harrison BJ, Symmons DP, Brennan P, Barrett EM, Silman AJ. Natural remission in inflammatory polyarthritis: issues of definition and prediction. Br J Rheumatol 1996 Nov;35(11):1096-100. [21 references] [PubMed](#)

UTILIZATION

Over nine million physician visits and greater than 250,000 hospitalizations are attributed to rheumatoid arthritis (RA) per year.

EVIDENCE FOR UTILIZATION

Allaire SH, Prashker MJ, Meenan RF. The costs of rheumatoid arthritis. Pharmacoeconomics 1994 Dec;6(6):513-22. [69 references] [PubMed](#)

Cooper NJ. Economic burden of rheumatoid arthritis: a systematic review. Rheumatology (Oxford) 2000 Jan;39(1):28-33. [33 references] [PubMed](#)

COSTS

Rheumatoid arthritis (RA) has significant economic implications for the individual patient, as well as for society. Individuals with RA have 3 times the direct medical costs, twice the hospitalization rate and 10 times the work disability rate on an age- and sex-matched population. A recent study has shown annual medical costs for a patient with RA to be approximately \$8,500. Annual costs rise as the duration of the disease increases and as function declines. Indirect costs related to disability and work loss have been estimated to be 3 times higher than the direct costs associated with the disease.

EVIDENCE FOR COSTS

American College of Rheumatology Subcommittee on Rheumatoid Arthritis.
Guidelines for the management of rheumatoid arthritis: 2002 Update. Arthritis
Rheum2002 Feb;46(2):328-46. [PubMed](#)

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Patients with rheumatoid arthritis started on prednisone greater than or equal to 10 mgs daily, (or other steroid equivalent) and who continue on prednisone for more than three months

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Patients with rheumatoid arthritis started on prednisone greater than or equal to 10 mgs daily, (or other steroid equivalent) and who continue on prednisone for more than three months

Exclusions

Unspecified

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Therapeutic Intervention

DENOMINATOR TIME WINDOW

Time window follows index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Patients for whom 1,500 mg calcium and 400 international units (IUs) per day of Vitamin D are prescribed and antiresorptive therapy is discussed with the patient

Exclusions

Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Episode of care

DATA SOURCE

Administrative data
Medical record
Patient survey
Pharmacy data

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Using a modification of the RAND Corporation/University of California Los Angeles (RAND/UCLA) Appropriateness Method, a multi-disciplinary expert panel comprised of nationally recognized experts in arthritis, primary care, and pain management discussed and rated the validity of each of the proposed measures based on 1) a summary of the evidence to support or refute each proposed measure and 2) their expert opinion.

EVIDENCE FOR RELIABILITY/VALIDITY TESTING

Khanna D, Arnold EL, Pencharz JN, Grossman JM, Traina SB, Lal A, MacLean CH. Measuring process of arthritis care: the Arthritis Foundation's quality indicator set for rheumatoid arthritis [in press]. Semin Arthritis Rheum:1-71.

MacLean CH, Saag KG, Solomon DH, Morton SC, Sampsel S, Klippel JH. Measuring quality in arthritis care: methods for developing the Arthritis Foundation's quality indicator set. Arthritis Rheum 2004 Apr 15;51(2):193-202. [PubMed](#)

Identifying Information

ORIGINAL TITLE

Quality indicator 9. Osteoporosis prophylaxis.

MEASURE COLLECTION

[The Arthritis Foundation's Quality Indicator Project](#)

MEASURE SET NAME

[The Arthritis Foundation's Quality Indicator Set for Rheumatoid Arthritis](#)

SUBMITTER

Arthritis Foundation

DEVELOPER

Arthritis Foundation
RAND Health

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2005 Jan

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

Khanna D, Arnold EL, Pencharz JN, Grossman JM, Traina SB, Lal A, MacLean CH. Measuring process of arthritis care: the Arthritis Foundation's quality indicator set for rheumatoid arthritis. *Semin Arthritis Rheum* 2006;35:211-237.

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MEASURE AVAILABILITY

The individual measure, "Quality Indicator 9. Osteoporosis Prophylaxis," is published in "Measuring Process of Arthritis Care: The Arthritis Foundation's Quality Indicator Set for Rheumatoid Arthritis."

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OR

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NQMC STATUS

This NQMC summary was completed by ECRI on October 23, 2006. The information was verified by the measure developer on February 1, 2007.

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